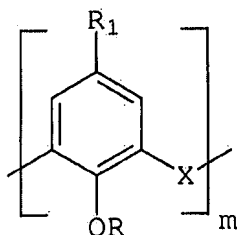


Listing of the Claims:

1. (Withdrawn) Excipient system for an active substance consisting of at least one carrier molecule from the group of calixarenes with the general formula I

I



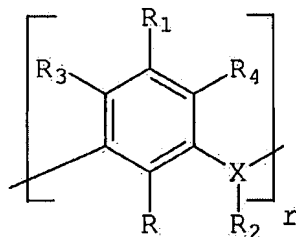
with $R = H$, alkyl, aryl, alkyloxy, aryloxy, amin, amide, carbonic acids and sulphonic acids with 1 to 12 C-atoms, amino acids, glucose or crown ethers,

$R_1 = H$, alkyl, aryl, alkyloxy, aryloxy, amin, amide, carbonic acids and sulphonic acids with 1 to 12 C-atoms, sulphonamides, amino acids, glucose or crown ethers, cyclodextrin, purine bases, pyrimidine bases or azophenyl dyes,

$X =$ methylene, S, O, N, P or Si and

$m = 4, 5, 6$ or 8 ,

wherein the aromatic systems may have at least one of heteroatoms and resorcinarenes with the general formula II



II

with R = H, alkyl, aryl, alkyloxy, aryloxy, amin, amide, carbonic acids and sulphonic acids with 1 to 12 C-atoms or amino acids,

R₁ = H, alkyl, aryl, alkyoxyl, aryloxy, amin, amide, carbonic acids and sulphonic acids with 1 to 12 C-atoms, sulphonamides, amino acids, glucose or crown ether, cyclodextrin, purine bases, pyrimidine bases or azophenyl dyes,

R₂ = alkyl or aryl,

X = methylene, S, O, N, P or Si and

r = 4, 5, 6 or 8,

and

R₃ = hydroxyl and R₄ = H

or

R₃ and R₄ = O, where R₃ and R₄ are bridged by way of methyls, ethyls or quinoxaline,

wherein the aromatic systems may have heteroatoms, and at least one active substance.

2. (Currently amended) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 9~~Excipient system for an active substance according to claim 1,~~ wherein the carrier is modified to increase water solubility, in particular by at least one of sulphonic acid groups, carbonic acid groups, amino groups and alcohols.

3. (Currently amended) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 9~~Excipient system for an active substance according to claim 1,~~ wherein the carrier is modified to influence at the pharmacokinetics of the system as a second-order metabolite, in particular by one of sulphonic acid groups, ~~and/or glucuronic acid groups and is a second order metabolite.~~

4. (Currently amended) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 9~~Excipient system for an active substance according to claim 1,~~ wherein the carrier is enzymatically degradable while releasing the active substance, in particular by aldolases, ketolases, esterases and cytochrome P 450.

5. (Currently amended) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 9~~Excipient system for an active substance according to claim 1,~~ wherein the carrier is modified by means of a linker which can be broken down enzymatically and is present as a prodrug.

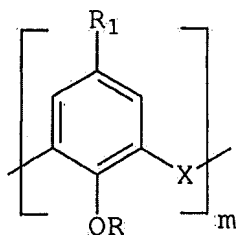
6. (Currently amended) The use of at least one calixerene as a carrier of active substances in excipient systems~~Excipient system for an active substance according to~~

~~claim 1~~ as in claim 9, wherein the carrier is modified by means of receptor-analogous groups which can be broken down statically by endocytosis.

7. (Currently amended) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 9~~Excipient system for an active substance according to claim 1~~, wherein the active substance is covalently bonded to the carrier.

8. (Currently amended) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 9~~Excipient system for an active substance according to claim 1~~, wherein the active substance is bonded to the carrier through a spacer, wherein the spacer is for example, one of a nucleotide spacer- or a peptide spacer.

9. (Currently Amended) Use of at least one of calixerenes and resorcinarenes with the general formula I or II in claim 1 as a carrier of active substances in excipient systems for active substances, wherein the calixerenes have the general formula I:



with R = H, alkyl, aryl, alkyloxy, aryloxy, amin, amide, carbonic acids and sulphonic acids with 1 to 12 C-atoms, amino acids, glucose or crown ethers,

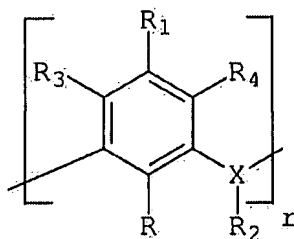
R1 = H, alkyl, aryl, alkyloxy, aryloxy, amin, amide, carbonic acids and

sulphonic acids with 1 to 12 C-atoms, sulphonamides, amino acids, glucose or crown ethers, cyclodextrin, purine bases, pyrimidine bases or azophenyl dyes.

X = methylene, S, O, N, P or Si and

m = 4, 5, 6 or 8; and

wherein the calixarene may be a resorcinarene with the general formula II:



with R = H, alkyl, aryl, alkyloxy, aryloxy, amin, amide, carbonic acids and sulphonic acids with 1 to 12 C-atoms or amino acids,

R1 = H, alkyl, aryl, alkyoxyl, aryloxy, amin, amide, carbonic acids and sulphonic acids with 1 to 12 C-atoms, sulphonamides, amino acids, glucose or crown ether, cyclodextrin, purine bases, pyrimidine bases or azophenyl dyes,

R2 = alkyl or aryl,

X = methylene, S, O, N, P or Si and

r = 4, 5, 6 or 8, and

R3 = hydroxyl and R4 = H, or

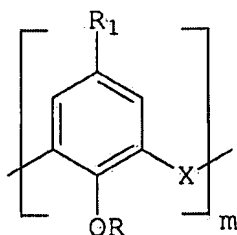
R3 and R4 = O, where R3 and R4 are bridged by way of methyls, ethyls or

quinoxaline; and

wherein the carrier may further comprise heteroatoms.

10. (New) Use of at least one calixerene as a carrier of active substances in excipient systems, wherein the calixerenes have the general formula I

I



with R = methyl.

R1 = sulphonic acid.

X = methylene and

m = 4,

wherein the aromatic systems may have at least one of heteroatoms.

11. (New) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 10, wherein the carrier is modified to increase water solubility, in particular by at least one of sulphonic acid groups, carbonic acid groups, amino groups and alcohols.

12. (New) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 10, wherein the carrier is modified to influence a

pharmacokinetics of the system as a second-order metabolite, in particular by one of sulphonic acid groups or glucuronic acid groups.

13. (New) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 10, wherein the carrier is enzymatically degradable while releasing the active substance, in particular by aldolases, ketolases, esterases and cytochrome P 450.

14. (New) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 10, wherein the carrier is modified by means of a linker which can be broken down enzymatically and is present as a prodrug.

15. (New) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 10, wherein the carrier is modified by means of receptor-analogous groups which can be broken down statically by endocytosis.

16. (New) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 10, wherein the active substance is covalently bonded to the carrier.

17. (New) The use of at least one calixerene as a carrier of active substances in excipient systems as in claim 10, wherein the active substance is bonded to the carrier through a spacer, wherein the spacer is one of a nucleotide spacer or a peptide spacer.